

Application/Control Number: 10/607,976

Page 2

Art Unit: 1746

CLMPTO

ACS

06/30/03

CLAIMS 1-14 ARE CANCELLED

15. A substrate cleaning apparatus comprising:
- 10 a cleaning cup configured to receive a to-be-cleaned substrate;
 - a table disposed in the cleaning cup, configured to support the to-be-cleaned substrate;
 - a first nozzle disposed in the cleaning cup, configured to supply an acid liquid agent;
 - 15 a second nozzle disposed in the cleaning cup, configured to supply an alkaline liquid agent;
 - a third nozzle disposed in the cleaning cup, configured to supply hot pure water;
 - a pure water heating mechanism configured to supply the hot pure water;
 - 20 a branch line formed in an intermediate portion of a pipe extending from the pure water heating mechanism to the third nozzle configured to supply the hot pure water to lower water pressure in the pipe; and
 - 25 a control mechanism configured to control operations of the first to the third nozzle and the pure water heating mechanism.

16. The substrate cleaning apparatus according to claim 15, which further comprises an open/close valve provided between the branch line and the pipe and in which the control mechanism has an operation for
5 causing the hot pure water supply nozzle to emit hot pure water, interrupting the emission and opening the open/close valve to lower the pressure in the pipe.

17. The substrate cleaning apparatus according to claim 16, wherein the pure water heating mechanism
0 controls the temperature of the hot pure water in a range of 60°C to 80°C.

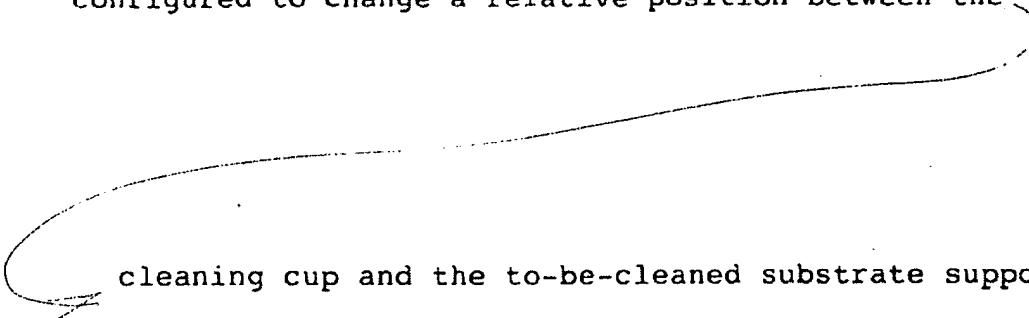
18. The substrate cleaning apparatus according to claim 15, wherein the to-be-cleaned substrate supporting table has an opening configured to substantially
5 expose a rear surface of the to-be-cleaned substrate and is made rotatable.

19. The substrate cleaning apparatus according to claim 18, wherein the third nozzle for supplying hot pure water is disposed below the to-be-cleaned
0 substrate supporting table to emit hot pure water to the rear surface of the to-be-cleaned substrate.

20. The substrate cleaning apparatus according to claim 15, further comprising a fourth nozzle configured to clean the cleaning cup.

Art Unit: 1746

5 21. The substrate cleaning apparatus according to claim 15, further comprising a moving mechanism configured to change a relative position between the



cleaning cup and the to-be-cleaned substrate supporting table.